

RANGE PLANTING SPECIFICATIONS
NATURAL RESOURCES CONSERVATION SERVICE

See Attached Tables

Table 1. Seeding rates, seeding dates, and site adaptation

Species/cultivar	Seeding rates (PLS lbs) ¹	Planting dates	Adaptation/Establishment methods
Switchgrass Alamo Blackwell	5 – 9	Optimum range: February 1 - May 15 Maximum range: December 1 - May 31	Switchgrass can tolerate a wide range of soil conditions, growing on sand to clay loam soils. Alamo is the most adapted cultivar statewide. Blackwell is a lower growing, upland cultivar. Switchgrass is winter and drought hardy and is also tolerant of acid soils. It does best on fertile, well-drained soils.
Eastern gamagrass Pete IUKA IUKA IV	8 – 10	Optimum range: February 1 - May 15 Maximum range: December 1 - May 31	Eastern gamagrass is winter and drought hardy. It is adapted to all soil textures and all but the most poorly drained soils. It is acid tolerant. This species prefers deep, well-drained loams and clays with adequate moisture. Specialized root cells enable this species to penetrate some root restrictive layers such as plow pans and fragipans. The seed of this species typically has low germinability, but successful stands can be achieved by using good seedbed preparation and seeding practices. This species can be seeded with a corn planter.
Big bluestem Kaw	7 – 10	Optimum range: February 1 - May 15 Maximum range: December 1 - May 31	Big bluestem is winter hardy and will grow in most soils except those that are very sandy or are saturated for extended periods. This species is acid tolerant. Deep, well drained soils are preferred. A fluffy seedbox is needed to plant this species. Good seedbed preparation is a must to ensure optimum seeding depth.
Little bluestem Cimmaron Aldous	7 – 10	Optimum range: February 1 - May 15 Maximum range: December 1 - May 31	Little bluestem will grow over a wide range of soils in all parts of the state. It is acid tolerant. It is highly drought resistant and moderately shade tolerant. A fluffy seedbox is needed to plant this species. Good seedbed preparation is a must to ensure optimum seeding depth.
Indiangrass Cheyenne Lometa	7 – 10	Optimum range: February 1 - May 15 Maximum range: December 1 - May 31	Indiangrass is winter and drought hardy. It is adapted to all soil textures, but does not do well in areas that are saturated for extended periods of time. Indiangrass is not as acid tolerant as the other native grasses. Deep, well drained soils are preferred. A fluffy seedbox is needed to plant this species. Good seedbed preparation is a must to ensure optimum seeding depth.
Virginia wildrye O'ma'ha	15 – 20	Optimum range: September 1 – October 15	Short lived perennial cool season native grass that tolerates both moist and dry sites, shade and full sun.
Canada wildrye Lavaca	15 – 20	Optimum range: September 1 – October 15	Short lived perennial cool season native grass that tolerates both moist and dry sites, shade and full sun.
Illinois bundleflower Sabine	12 – 14	Optimum range: February 1 - May 15 Maximum range: December 1 - May 31	Illinois bundleflower is adapted across a wide range of soil textures and is tolerant of acid soils. It is moderately drought tolerant.
Purple Prairie Clover	4 – 5	Optimum range: September 1 – April 1	Perennial legume. Seeds are eaten by quail and other ground birds
White Prairie Clover	3 – 4	Optimum range: September 1 – April 1	Perennial legume. Seeds are eaten by quail and other ground birds
Partridge pea Comanche	10 – 13	Optimum range: February 1 - May 15 Maximum range: December 1 - May 31	Partridge pea is adapted to coarse and medium textured soils. This plant grows on a wide range of soils that are slightly acid to moderately alkaline. However, it grows best on moderately lime, well drained soils.
Maximillian sunflower Aztec	2 – 3	Optimum range: February 1 - May 15 Maximum range: December 1 - May 31	It is adapted to many soil types, from sands to clays and is moderately drought tolerant. It favors good internal drainage. It is not shade tolerant. Excessive long-term wetness or salinity may pose problems with keeping stands.

¹ All seeding rates are in pounds of pure live seed (PLS) per acre. PLS% = (% germination * % purity).

Table 2. Examples for calculating seeding rates in a mixture

Example 1:

Species	Full seeding rate (PLS lbs./acre)	Percent of mixture	Actual seeding rate (PLS lbs/acre)
Indiangrass	7	50	3.5
Switchgrass	6	35	2.1
Partridge pea	13	15	1.9

Example 2:

Species	Full seeding rate (PLS lbs./acre)	Percent of mixture	Actual seeding rate (PLS lbs/acre)
Big bluestem	7	25	1.8
Little bluestem	7	25	1.8
Switchgrass	6	25	1.5
Eastern gamagrass	8	15	1.2
Partridge pea	13	5	0.7
Illinois bundleflower	14	5	0.7

Table 3. Criteria for determining stand establishment

Number of plants/ft ²	Status	Recommended action
Less than 0.05	Failure	Reapplication required
0.05 - 0.10	Probable failure	Reapplication recommended
0.10 - 0.50	Questionable	Continue to evaluate at the end of the first growing season. Consider: <ul style="list-style-type: none"> • plant vigor • potential to increase • extent of competition Reapply if no improvement by the middle of the second growing season
More than 0.50	Satisfactory	Implement grazing management

The method for determining the adequacy of a grass stand is:

- Step a line across the field
- Stop every 10th step and count the established plants in a square foot at the end of your foot. Record the number counted
- Add up the total number of plants counted and divide by the number of square feet that were checked. The resulting number indicates the number of plants/ft²

Example: You walked across a field and stopped 50 times to count the plants in a square foot. You counted a total of 20 plants. $20/50 = 0.4$. This stand would be considered questionable.